

AMENDMENT

In the Claims:

The following listing reflects amendments to the claims and replaces all prior versions and listings of claims in this application.

1. (Currently amended) An isolated nucleic acid molecule comprising a coding sequence for an immunogenic *C. parvum* polypeptide, wherein the polypeptide is selected from the group consisting of (a) a polypeptide comprising the sequence of amino acids depicted at amino acid positions 1-193 of Figure ~~2B~~ 2A (SEQ ID NO:4), or an immunogenic fragment thereof comprising at least 15 ~~nucleotides~~ amino acids and that elicits an equivalent or enhanced immunological response as compared to the polypeptide comprising the sequence of amino acids depicted at amino acid positions 1-193 of Figure ~~2B~~ 2A, wherein the immunological response comprises the ability to elicit the production of neutralizing antibodies against *C. parvum*, and (b) a polypeptide with at least 90% sequence identity to a polypeptide comprising the sequence of amino acids depicted at amino acid positions 1-193 of Figure ~~2B~~ 2A (SEQ ID NO:4) and that elicits an equivalent or enhanced immunological response as compared thereto, wherein the immunological response comprises the ability to elicit the production of neutralizing antibodies against *C. parvum*.

2. (Cancelled)

3. (Previously presented) The nucleic acid molecule of claim 1 wherein said molecule comprises a nucleotide sequence having at least 90% sequence identity to the nucleotide sequence shown at nucleotide positions 9-587, inclusive, of Figure 2A (SEQ ID NO:3).

4. (Original) A recombinant vector comprising:

(a) a nucleic acid molecule according to claim 1; and

(b) control elements that are operably linked to said nucleic acid molecule whereby said coding sequence can be transcribed and translated in a host cell, and at least one of said control elements is heterologous to said coding sequence.

5. (Cancelled)

6. (Original) A recombinant vector comprising:

(a) a nucleic acid molecule according to claim 3; and

(b) control elements that are operably linked to said nucleic acid molecule whereby said coding sequence can be transcribed and translated in a host cell, and at least one of said control elements is heterologous to said coding sequence.

7. (Original) A host cell transformed with the recombinant vector of claim 4.

8. (Original) A method of producing a recombinant *C. parvum* antigenic polypeptide comprising:

(a) providing a population of host cells according to claim 7; and

(b) culturing said population of cells under conditions whereby the antigenic polypeptide encoded by the coding sequence present in said recombinant vector is expressed.

9-31. (Cancelled)

32. (Currently amended) The nucleic acid molecule of claim 1, wherein the coding sequence encodes an immunogenic polypeptide comprising the sequence of amino acids depicted at amino acid positions 1-193 of Figure ~~2B~~ 2A (SEQ ID NO:4).

33. (Previously presented) A recombinant vector comprising:

(a) a nucleic acid molecule according to claim 32; and

(b) control elements that are operably linked to said nucleic acid molecule whereby said coding sequence can be transcribed and translated in a host cell, and at least one of said control elements is heterologous to said coding sequence.

34. (Previously presented) A host cell transformed with the recombinant vector of claim 33.

35. (Previously presented) A method of producing a recombinant *C. parvum* antigenic polypeptide comprising:

- (a) providing a population of host cells according to claim 34; and
- (b) culturing said population of cells under conditions whereby the antigenic polypeptide encoded by the coding sequence present in said recombinant vector is expressed.